IMPLICIT BOUNDARIES, BOUNDARY CONFIGURATIONS AND KEY AGENTS:
TRACING SOCIAL ENTERPRISE LEARNING
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ABSTRACT
We micro-analysed organizational learning interactions in social enterprises from a boundary perspective. Using qualitative data from four Indian social enterprises, we identified three implicit boundaries – competence, social and power – which in isolation and through mutual interactions impacted learning. Dynamic stakeholder interaction configurations, learning mechanisms and critical agents were identified for each boundary. Immersion through lived experience rather than mere membership of the target community enabled learning across social boundaries. Learning involved interactions between competence and social boundaries, with middle managers playing a critical integration role in the process. Within the enterprise, horizontal overlaps between competence boundaries at the middle management level (through specific integration mechanisms) supported learning. Potential power boundaries due to knowledge differences were inferred in the enterprises. The prevailing learning modes, supported by socialized use of legitimate power, acted as influence mechanisms to facilitate learning.

Keywords: Implicit organizational boundaries, organizational learning, social enterprises, qualitative research.

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INTRODUCTION

“There was a wall. It did not look important. It was built of uncut rocks roughly mortared. An adult could look right over it, and even a child could climb it. Where it crossed the roadway, instead of having a gate it degenerated into mere geometry, a line, an idea of boundary. But the idea was real. It was important. For seven generations there had been nothing in the world more important than that wall.” – Ursula K. Le Guin, The Dispossessed (1974: 1).

The above quote describes a wall which acted as a boundary dividing the fictitious land of Anarres from its port, signifying the separation of Anarres from the rest of the world. The road, on the other hand, provided an opening, which connected these two worlds.

Boundaries in organizations serve similar functions. Boundaries are permeable or impermeable discontinuities which demarcate a social structure from another, thus delineating what lies within and outside (Wenger, 1998). They are either explicitly recognisable (e.g. departmental boundaries) or remain implicit (e.g. boundaries between experts and novices), surfacing in specific situations. While acting as differentiators, they also provide spaces for interaction between the two sides they separate. This dual possibility of inhibiting or facilitating interactions (Carlile, 2002) makes boundaries potent loci for deriving key insights into the nuances of organizational learning processes (Wenger, 2000).

Organizational literature has looked at boundaries from two perspectives - of learning, viewing boundaries as sites where individuals/groups possessing different knowledge sets interact (e.g. Wenger, 2000), and of strategic significance, of how boundaries develop as organizations distinguish themselves from their environment, ensure resource availability, utilize resource bundles efficiently and maintain identity (Santos & Eisenhardt, 2005, 2009). While Santos and Eisenhardt (2005) identify four types of boundaries, viz., of efficiency, competence, power and identity that assume strategic significance for organizations; studies
from the first stream focus only on learning across single boundaries ignoring the impact of multiple types of boundaries which could coexist in the organizational space. Hence, combining these two perspectives, we examined learning interactions across discrete individual boundaries, simultaneously looking for the emergence of, and interaction between, multiple boundary conceptions. This approach, we felt, could critically further our understanding of organizational learning interactions and processes.

Boundary literature in organization studies has developed primarily from research on commercial organizations possessing clearly distinguishable boundaries, a reasonably stable external environment, and often dominated by the ‘exchange efficiency’ paradigm in their business pursuits and organization designs (Santos & Eisenhardt, 2005). However, as efficiency does not always mean effectiveness, survival and strategic imperatives including multi-faceted demands of stakeholder management propel organizations to look for and cater to boundary conceptions other than or beyond that of just efficiency. Santos and Eisenhardt (2005), therefore call for studying different and novel organizational contexts.

We identify social enterprises [SEs] as such a context. Addressing societal needs with entrepreneurial spirit and social purpose, SEs operate at the intersection of public, private and social domains (Dees & Anderson, 2006), through a wide range of organizational forms (Dees, 1998a) and operational models (Alter, 2006). Often functioning in unique operational contexts, they face a relatively unstable environment characterised by fragmented funding market (Wei-Skillern, Austin, Leonard & Stevenson, 2007) and scarcity of adequately skilled human resources (Center for Advancement of Social Entrepreneurship, 2008). Consequently, significant boundaries, ill-defined and more dynamic than in the commercial sector, and lying beyond or outside of their managerial control might emerge in SEs at unexpected loci. Innovating successfully and consistently in such contexts would indicate the presence of
active learning processes across the different boundaries. Accordingly, we sought to uncover implicit and explicit boundaries impacting the process of organizational learning in SEs.

First, we review relevant literature to develop the research questions. Then we describe the qualitative research method employed, followed by analysis which revealed the presence of implicit competence, social and power boundaries. We describe the nature of these boundaries, their interactions, learning mechanisms across them and critical agents impacting learning to develop a theoretical account. Finally, we discuss contributions of this study.

**ORGANIZATIONAL LEARNING AND BOUNDARIES**

Organizational learning [OL] literature is extensive and growing. OL theories have defined and described learning and its different types, contexts within and across which it occurs, and the structures, systems and processes involved therein (Ortenblad, 2002; Shipton, 2006). Over years, the focus has expanded to applying OL concepts at inter-organizational level (Bapuji & Crossan, 2004), to include external stakeholders such as lead users (von Hippel, 2005), to study learning in social forms such as informal work groups and communities of practice (e.g. Wenger, 1998), and to examine learning factoring in the context of operations, termed as 'situated learning’ (e.g. Lave, 1991).

As boundaries differentiate social structures with different knowledge bases, from the perspective of situated learning, boundaries and boundary interactions become the loci for learning interactions (Brown & Duguid, 1991; Lave, 1991, 1993; Wenger, 1998). They bring to light differences in knowledge and experience on either side, exhibiting homogeneity of knowledge within and heterogeneity between, thus providing opportunities for learning (Wenger, 2000). Boundaries can be structural such as organizational or departmental; or competence based, such as technological (Rosenkopf & Nerkar, 2001). Organizational structures affect the strength of boundaries - tall structures tend to have stronger boundaries between units and levels (Kajamaa, 2011), as do units such as R&D with highly specialized
knowledge. Ability to span boundaries across professional units and organizations has been identified as a competence, leading to competitive advantage for an organization (Nonaka, 1994; Levina & Vaast, 2005).

While the learning perspective focuses on knowledge differences across structural or competence boundaries, the strategic perspective views boundaries as enveloping individuals and resources. Based on the organizational objectives behind boundary decisions, Santos and Eisenhardt (2005) describe four types of boundaries – efficiency, competence, power and identity. While the efficiency conception emphasises minimization of transaction costs (Williamson, 1981) as the key driver for organizational boundary decisions; the competence conception, rooted in the resource based view of the firm (Barney, 1991; Peteraf, 2006), approaches boundary decisions as dependent on the inclusion of critical resource configurations into the organization to derive competitive advantage. The power conception focuses boundary decisions on the ability of the organization to exert influence over external stakeholders and to control exchange relationships (Pfeffer & Salancik, cited in Santos & Eisenhardt, 2009); and the identity conception, derived from the sensemaking approach of Weick (1995) pitches boundary decisions on coherence between the organization’s identity and its activities (Dutton & Dukerich, 1991). These conceptions open fresh avenues for organizational researchers to go beyond the efficiency perspective and to examine boundaries more implicit in nature, which we do in this study in the context of social enterprises.

**SOCIAL ENTERPRISES, ORGANIZATIONAL LEARNING AND BOUNDARIES**

Social entrepreneurship and social enterprises have been variously defined in literature. *Social entrepreneurship* is a process through which social value is created by utilizing entrepreneurial and business practices to address social disparities (Austin, Stevenson & Weiskilern, 2006; Mair & Marti, 2006; Nicholls, 2006; Schwab Foundation). It is a set of activities that convert ideas into context based solutions to address social problems and to
bring about social transformation. The process involves development of means of earned income, wherever possible; and innovation, both incremental and radical, is an integral part of the process. A social enterprise (SE) is an organization created to carry out the process of social entrepreneurship (Alter, 2006; Dees, 1998a; Shaw & Carter, 2007). SEs can adopt multiple financing models (e.g. not-for-profit, for-profit and hybrid; Dees, 1998a), legal forms (e.g. NGOs, cooperatives, private companies, etc.), and operating models (e.g. market intermediary, employment, fee-for-service, etc.; Alter, 2006).

SEs provide a unique setting where social values of an organization meets the efficiency paradigm of its business organization (Alter, 2006). Operating in resource constrained environments (Di Domenico, Haugh & Tracey, 2010), accessing human resources with required competencies becomes a challenge for SEs (Center for Advancement of Social Entrepreneurship, 2008), owing to their inability to offer market level compensation to employees (Wei-Skillern et al., 2007). Hence, they tend to involve part-time members, volunteers, and the beneficiary community in key roles (Dees, 1998b), and seek to actively engage with and learn from funders, experts and partners, thus moving beyond traditional employment modes and structural boundaries. Further, since the social context of operations of SEs varies widely with the target community, context embeddedness (Mair & Marti, 2006) becomes critical to them for developing context specific solutions. SEs often attempt to achieve this by actively learning across the target community boundary.

Hence, for successful functioning, SEs need to look beyond structural boundaries and actively engage with different stakeholders to garner critical resources and knowledge. In this process, significant differences in knowledge, power and identity with stakeholders are likely to emerge, giving rise to implicit boundaries which can impact learning. Examining OL in this context, hence, can enable progression from structural boundary conceptions to identifying and establishing more implicit boundaries, revealing their role, interaction and
transformations in facilitating or impeding learning. We investigated these aspects with the following research questions (RQ):

1. Which boundaries – explicit and implicit – surface and become significant for and during organizational learning interactions in social enterprises?
2. What boundary configurations emerge in the process of learning, and how do they change over time?
3. How do explicit and implicit boundaries interact with each other and how does this interaction impact learning?
4. What mechanisms do social enterprises employ to facilitate learning across these boundaries? Do any specific agents become critical to this process, and if so, how?

METHOD

Research sites

We followed “purposeful sampling” (Patton, 2002: 230) to identify research sites. First we identified SEs run by social entrepreneurs listed on the website of Ashoka Foundation,\(^3\) belonging to the most vibrant domains of health, education, economic development and environment. Studying descriptions of activities in the Ashoka profiles and official websites, 199 SEs which seemed to be innovative with possible presence of active learning processes were shortlisted. Recognizing that organizational age could introduce variability in learning processes, we narrowed the sample to two groups: those established between 1991-2000 (relatively mature, N =44) and 2001-10 (relatively new, N = 18). Then we contacted the top management team (TMT) members of these SEs, explained to them the study objectives, and

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\(^3\) Established in 1980 in the USA, Ashoka Foundation is one of the first organizations that provide financial and strategic support to select social entrepreneurs in around 60 countries across the world. It provides one of the most comprehensive criteria for selection of social entrepreneurs (www.ashoka.org).
sought their own assessment of availability of data relevant for this study. Data collection was undertaken in two phases. We were conscious to prioritise and choose SEs based on their openness and potential to provide detailed data, such that themes emerging from data collected (in phase 1) could be subsequently elaborated and expanded (in phase 2). Five SEs (out of 13 contacted) consented to participate. In one, much relevant data was not available as a few key individuals had recently left the SE. Finally, we studied the following four SEs: Vision Foundation (VF), Entrepreneurship Development Network (EDN), Education Foundation (EF) and Society for Social Action (SSA).\(^4\) Table 1 provides the objectives and demographics of these SEs and sources of data collection.

Data collection

The first author (henceforth ‘researcher’), did the field data collection. In consultation with the CEOs in three SEs and the middle manager in the fourth, she identified high learning projects or activity domains. In each of the four SEs, she ensured that the offices/units from where data was collected were comparable in terms of size and scope of activities.

**Site visits.** The researcher spent two weeks with each SE during which she familiarised herself with and observed the SEs’ daily activities, engaged with employees in informal discussions and undertook target community field visits in two of the SEs. Observations were predominantly non-participative in nature, with peripheral participation in a few of SEs’ activities. Observations and reflections from these activities were noted in a field diary.

**Interviews and group discussions.** Data was collected through semi-structured interviews and group discussions. Usually the researcher started with the CEO or an experienced middle

\(^4\)Names of SEs and of other organizations referred in this article have been changed to maintain anonymity.
manager who had in-depth information about different projects as well as history of the SE. From these, she identified high learning projects/ areas of activities, and conducted depth-interviews of employees involved in them. Interviews were conducted in an informal, conversational style, not always in office settings, and focused on eliciting learning episodes (Sole & Edmondson, 2002) experienced in the projects. Participants were encouraged to talk freely about their learning experiences, on which the researcher then probed deeper. She also conducted a few group discussions. All interviews and group discussions were recorded and transcribed verbatim, and averaged 43 minutes with a range of 25 to 85 minutes.

**Secondary data sources.** To substantiate the primary data, she also looked at secondary sources like photographs (of office space, posters, charts, and field activity), internal publications, reporting formats and documents, annual reports, and information from official websites.

**Data analysis**

Data analysis followed iterations between data and theory (Eisenhardt, 1989; Glaser & Strauss, 1967). For coding the data we took inspiration from grounded theory (Glaser & Strauss, 1967) to systematically develop themes. First, data was coded to identify OL episodes and potential OL episodes\(^5\). This was followed by broadly coding each episode (specifically, and also the remaining data for additional themes) to examine the type of knowledge being shared/ exchanged, context of interaction, agents involved, mechanism used, and outcomes of learning. Such initial coding enabled identification of boundary conceptions as a theoretical frame to examine the learning process. Coding was done one SE at a time and involved constant comparisons (Glaser & Strauss, 1967) of data units. Codes

\(^5\) Deriving from Sole and Edmondson (2002), a learning episode was defined as a series of experiences, activities and decisions leading to a particular insight manifested in tangible or intangible learning outcomes for the organization. A potential learning episode was defined as a series of experiences and activities which indicate the possibility of organizational learning (currently or in future) as described above but the process does not complete itself to be categorised as organizational learning.
were revisited, elaborated and modified as the researcher moved from one data unit to the next and from one SE to another. This enabled expansion of the codes and identification of higher level themes. Theoretical comparisons of the emerging themes were undertaken across the four cases (Eisenhardt, 1989) to expand and develop their dimensions.

The two authors undertook several in-depth discussions questioning upcoming themes for their robustness, bringing in different theoretical perspectives to examine them. The coded data was then presented to two experts, both with doctoral degrees and conversant with qualitative research. Based on their comments, discussions and relevant literature, data was again coded and discussed with them. It was then presented to a third external expert, also a doctoral degree holder and proficient in qualitative research. This process of expert review-inputs and iteration between theory and data was repeated multiple times, resulting in identification of boundaries as categories which later emerged as a central theme.

An inter-rater agreement exercise was conducted in order to check for the robustness of the coding process and emerging themes. Two doctoral students in Organizational Behaviour and Strategy areas in advanced stages of research and conversant with qualitative research methods volunteered to act as independent coders. 54% of the data units coded for OL and potential OL episodes were selected, and were provided to the coders, 2 SEs each. Before the coding process, the researcher undertook detailed discussions with the coders on the purpose of the study, context of the organizations studied, the methodology being used and the coding process. A codebook of all possible basic codes, and sub-codes with their definitions and examples, for the theme under study was developed and provided to the coders. The researcher and the coders coded the data independently followed by discussions in case of differences to reach an agreement wherever possible. Kappa statistics (Cohen, 1960) were calculated for pre-agreement codes (see Table 2), and were found to be highly significant indicating a high level of agreement between the coders and the researcher, and indicative of
the reliability of the codes. However, in the case of one code - power boundaries emerging due to knowledge differences - there was no agreement. This code was identified as a higher level code, not directly visible in the data. This led to intense discussions between the coders and the researchers leading to changes in the code (discussed later in analysis).

Insert Table 2 about here

Setting the context: Structural boundaries and organizational role relationships

In order to set a context for understanding the location of implicit boundaries, we first describe explicit structural boundaries in SEs. Structural boundaries distinguish an organization from its external environment, and internal structural boundaries differentiate between functional units/departments horizontally and establish the hierarchy. Internal boundaries in each SE we studied could be broadly located between the top management, the middle management, and the executives; matching with the conventional norms of hierarchy.

CEO(s) chiefly represented the TMT. Other TMT positions either did not exist formally or did not have a critical decision making role. Middle management was located either at the head office (HO) or the regional office (RO); and consisted of RO head (where applicable) and different department heads, with little vertical differentiation between them. Executives were employees at the lowest level who actually implemented SE programme(s), and were field based in three of the four SEs. The social programmes/activities conducted by the SEs formed the basis of departmentalization, alongside support functions.

ANALYSIS AND RESULTS

Data analysis indicated the presence of two knowledge bases around which learning interactions occurred in SEs: expert and contextual. Expert knowledge refers to knowledge held by individuals due to which they are identified as specialists in any particular domain, and includes domain specific knowledge as well as knowledge gathered over time by virtue of professional experience. Contextual knowledge refers to knowledge about the social
environment of the target community. It includes knowledge of target community demographics; their cognitive, affective and behavioural tendencies; and the social, cultural, political and economic context in which the target community operates.

Based on differences in these two knowledge bases among individuals, groups and organizations, three implicit boundaries emerged: competence, social and power. Boundaries of competence demarcate critical resource configurations within and across the organization that come together to develop products and services (Santos & Eisenhardt, 2005). In this study, competence boundaries are defined as enclosing individuals/groups with specific expert knowledge. Social boundaries distinguish individuals/groups coming from different social contexts and therefore enclose individuals/groups possessing specific contextual knowledge. Social boundaries indicate dissimilarities in implicit assumptions, norms, culture, functioning and mental models of individuals on either side. Boundaries of power enclose and demarcate individuals/groups both within and outside the organization who are perceived to hold resources critical for the organization, and therefore have the power to influence organizational decisions and actions (Santos & Eisenhardt, 2005). We now describe each of these boundaries, learning mechanisms and the role of key agents followed by impact of their interactions with and influence on each other to derive theoretical inferences.

**Competence boundaries**

Data revealed boundaries of competence between SEs and external stakeholders, and between individuals/groups within the SEs. We identified different boundary configurations supporting learning, learning mechanisms across them and consequent shifts in boundaries.

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6 The concept of competence used here is different from competencies. Competencies are specific abilities which are present in specific individuals at different levels of expertise. Competence is a more generic term given to the expertise that an individual or group possesses.
**External boundaries of competence: From external to internalised**

Boundaries of competence with external stakeholders emerged when SEs looked beyond their structural boundaries for critical expert knowledge to carry out their core activities. They learned from several external experts including partners and funders using a combination of learning mechanisms: formal training, formal/ informal interactions, and developing bridges with experts. Initially, competence boundaries extended beyond the structural boundary to include external experts; but over time, the expertise was brought into the SE, indicating internalization through OL (see Figure 1). While Table 3 summarizes the changing boundary configurations and corresponding OL mechanisms in the four SEs, we root them in data in the following paragraphs.

In EDN, we identified competence boundaries between middle management and external experts, across which learning occurred through formal training and interactions. During the initial stages, EDN did not have expertise in its key programme domains such as microfinance and health. Identifying this deficiency, formal trainings were organized with the help of expert partner organizations. Middle managers internalized this knowledge, applied it, and disseminated it through internal training, resulting in reduced dependence on external sources for core knowledge. As the unit manager of microfinance stated:

> I got SHG [self help group] training from EDN. The CEO had trained us (*competence boundary – internal*). ... I was working in SHG [from 2001] till July 2005... After July I went to Jharkhand [a state in India] for microfinance training in ABC [external expert organization] (*competence boundary – external*). [Now]... I provide training [to microfinance team]. (*internalization of expert boundary, mode – formal training*).\(^7\)

\(^7\) Wherever quotations appear, corresponding codes developed during analysis are included in italics within brackets. Words in square brackets have been added to complete the sentence or to add relevant information to the quote. Field notes have also been included as data and coded similarly.
EDN also conducted regular and need-based trainings with the help of experts such as government doctors, private experts, and sometimes funding organizations. An interesting configuration was identified in the agriculture department where learning occurred through a middle manager who acted as a permanent bridge between the SE and external subject matter experts (SMEs). Here, external competence, being highly scientific and specialized in nature, was not internalised, and the middle manager acted as a broker enabling OL. The agricultural development manager described this arrangement:

I talk to scientists from the Agricultural University... I get to know from them about the [new] technique. I am directly in contact with the scientists. I have got farmers trained on the new technique... (Boundary of competence – external, mode – bridging with experts).

In SSA, during initial stages of programme development, the top management (CEOs) took formal training from external experts; identifying it as a key mechanism for internalisation of required expert knowledge in addition to regular, need based trainings. In addition, funders themselves proactively engaged with SSA, and supported training. In EF, instead of formal training, OL occurred primarily through proactive learning by middle managers while working with and observing partners in action. The process of active participation and mutual engagement with partners enabled shifting of competence boundaries inside the SE. Both informal and formal learning interactions occurred. In addition, internal SMEs brought in relevant knowledge through personal relationship based interactions with external experts in their domain. A manager illustrates:

We try to [develop expertise] in-house. But partners have spent considerable amount of time in that domain. We have a good partnership with BDH [external expert organization] in terms of classroom learning (boundary of competence – external). BDH has its own model, we have learnt quite a lot from it... we have learnt a lot from their maths pedagogy (internalization of expert boundary)... our design team is in contact with [partners], they keep exchanging [information], they keep going there, and they have friends there (internalization of expertise, mode – formal and informal personal relationship based interactions). And sometimes if we feel that we need to build capabilities of our people – internal classroom teaching – we directly call them and they train us (internalization of expertise, mode – formal training).
Lack of initial formal training in EF was compensated by hiring individuals with previous relevant work experience and on the job learning. A few instances of strategic level learning were also identified in interactions with individual experts (such as academics) especially during the initial stages of programme development.

In VF, only a few OL incidents were identified. Learning interactions with partners were not observed. The SE was open to learning and middle managers took initiatives to invite external experts to provide knowledge on areas related to its domain; and sent employees to visit other similar SEs. However, these interactions did not convert into identifiable learning outcomes. Based on the researcher’s observations, a possible explanation could be the lack of identification of specific knowledge requirements by the SE, which seemed to result in non-specific boundary spanning. Consequently, employees who acted as boundary spanners were either unable to identify relevant information or subsequently convert it into actionable plans. VF compensated for some of these aspects by hiring employees with relevant work experience (e.g. inclusion of a research team and an advocacy team; getting interns with relevant expertise from partner organizations) and on the job learning.

In summary, analysis indicated that in the initial stages of programme development, most SEs depended upon external experts for core expert knowledge due to lack of skilled human resource within. The knowledge differences were identified by the middle or top management. SEs tended to internalize this knowledge over time chiefly through learning and sometimes non-learning mechanisms such as hiring and partnering without learning, and reduced dependence on external experts. Internalization also occurred at different stages in the life cycle of the SE as and when requirements for additional knowledge arose, during regular activities, or when new programmes/activities were added. Additionally, developing bridges with external experts without complete internalization also enabled OL. Chief
learning mechanisms included formal trainings and interactions, personal relationship based interactions, active participation in activities and developing bridges with external experts.

**Internal boundaries of competence: From distinct to overlapping**

Competence boundaries within the SEs ranged from distinct to overlapping, that is, they either clearly differentiated between individuals/groups with distinct expert knowledge, or displayed overlaps between expert knowledge of two or more groups. Distinct boundaries of competence surfaced wherever internal experts transferred knowledge to others inside the SE. Internal experts were developed through internalization of external expertise, accumulation of domain specific or professional knowledge, or experience over time in the domain of activity, and hiring. Internal boundaries of competence either coincided with vertical and horizontal organizational boundaries or blurred them, assuming new configurations. In each SE, different configurations were revealed (Figure 2). Table 4 illustrates these internal boundaries and corresponding learning mechanisms.

Insert Figure 2, Table 4 about here

Boundaries of competence in EDN coincided with vertical structural boundaries. Centres of competence lay around (a) the CEO, and (b) the RO head and middle managers. These boundaries could be identified in instances of formal training:

Unit manager, Microfinance, EDN: The [microfinance] trainings are organized by a lady but our staff provides it (boundary of competence: Location: middle manager – executives). We make the materiel on our own, based on our experience – how and whom [client] to talk to [for microfinance]... (expert knowledge).

While EDN exhibited distinct vertical boundaries, horizontal structural boundaries (i.e. interdepartmental) at the middle management level were blurred due to high degree of knowledge overlaps between them. This became evident as the manager of SHG was able to provide detailed information to the researcher about the processes and learning experiences of other departments such as health and agriculture:
SHG manager [Department 1] about village health guides [VHGs, executives in department 2]: [We] divide their trainings into months. Every month we train about different health aspects (*blurred inter-departmental boundaries, overlapping boundaries of competence*). Our 35 VHGs will go to every village and conduct meetings [about health aspects... we need to know about all activities – health, microfinance, agriculture]. Whichever SHG wants microfinance will first contact SHG supervisors only. They will connect them with the livelihood advisor (microfinance team) (*blurred inter-departmental boundaries, overlapping boundaries of competence*).

Same was true for other departments. Knowledge overlaps aided learning from successes, failures and challenges by enabling deeper understanding of departmental problems, better problem solving and cross-departmental idea generation. Overlapping horizontal departmental boundaries at the middle management level were thus found to facilitate OL. Similar to EDN, EF also exhibited distinct vertical boundaries and blurred horizontal boundaries at the middle management level. Middle managers had knowledge of each other’s activities but the depth of knowledge was lesser compared to EDN.

Boundaries of competence also existed between middle managers and internal SMEs who developed content for EF’s training workshops. Learning occurred across this boundary as specific subject knowledge was combined with operational knowledge and experience of the middle managers for developing training programmes. Through the process of co-creation and mutual engagement, knowledge was exchanged signifying overlaps between competence boundaries over time:

Middle manager [Department 1], EF: Usually what happens, when we design the workshop [for target community and long term interns], then I am from operations team (*field expert*), and there is a curriculum person (*subject matter expert; distinct boundary of competence*). Both of us sit together. I tell her that this is happening in the field, this is the requirement... and then she comes up with her expertise and we integrate it (*co-creation, mutual learning, indication of boundary overlaps over time*).

Vertical overlaps in competence boundaries developed in EDN and EF as the middle managers and executives interacted for programme implementation, which required them to combine their expert and field knowledge through a process of mutual engagement.
Combined with formal training, it resulted in overlaps in vertical competence boundaries over time as expert knowledge was transferred to executives and field knowledge was gained by the middle management. The following exemplar from EF illustrates this shift:

Team member [Department 2], EF: [In] capacity building work there are two kinds of inputs, one goes directly from the programme team from the Programme Leaders [middle managers] in the form of Kick Start Workshop [KSW, attended by target community and long term interns] (distinct boundary of competence, mode – formal training)... immediately after the 4 days of KSW, at the 4th day, each HM [Head Master: target community] makes a plan. He creates a vision for his/her school then shares with the GFs. That is the 1st version... then that plan is reviewed by PLs, GFs and senior fellows. Then GF makes another plan, version 2, again it happens mutually with the HM... again the PL and GF will sit on version 3 and again there are some more changes... [until a final version is finalized] (Boundary of competence – Location: between (middle managers and long term interns) and target community, mode – mutual engagement and co-creation, overlapping boundary of competence between long term interns and middle managers).

In SSA, distinct internal competence boundaries were observed between the CEOs and rest of the organization while those between middle managers and the executives overlapped. Middle managers had strong operational knowledge but their domain specific, subject matter expertise was at a similar level as the executives. OL occurred through direct involvement of CEOs with the executives, CEOs identified as the seat of expertise in the organization:

Middle manager [District supervisor], SSA: [The CEOs] developed the idea of progressive schools, they made the training package. They provide the training (distinct boundary of competence, Location: CEOs – executives, mode – formal training) and based on the subject, they also call people from outside who are experts in it. ...Training is provided from SSA. I have taught for 6 months [in the schools in SSA]. I got 7 days training. I have given small trainings in villages... how to keep registers, how to bring older children to school, how to teach them... (overlapping boundary of competence of middle management with community employee, training on operational aspects).

VF exhibited distinct competence boundaries, interactions across which primarily focused on information sharing rather than learning thus resulting in silos of expert knowledge. The CEO and a middle manager (helpdesk manager) were identified as experts whom other employees would contact for information. Helpdesk manager was considered as an expert by
virtue of his multiple expertises - in his department, and in understanding of other domains of VF’s activity, and long term association with it. This was evident when the CEO directed the researcher to meet this manager for details on the evolution, objectives and functioning of VF before meeting other employees. Other departments (e.g. advocacy, research) could also be identified as individual expert zones owing to their domain specific knowledge.

In summary, overlapping horizontal boundaries of competence at the middle management, which led to blurring of horizontal departmental boundaries, promoted OL. Data revealed that these overlaps developed due to the presence of integration mechanisms that necessitated or facilitated horizontal interactions at the middle level. In EDN, the target community, organized into SHGs, with whom all departments interacted to conduct their activities, became the base around which departments shared knowledge, leading to horizontal overlaps in competence boundaries. In EF, integration occurred through job design which incorporated a functional and an operational role for each middle manager. The operational role required them to mentor and support activities of executives who had the same job description thus requiring all middle managers to possess a common pool of knowledge. Further, the two main programmes run by EF were designed to be interdependent. On the contrary, in SSA, horizontal boundaries of competence were distinct and did not overlap. Instead, constant interaction between the CEOs and middle managers and executives enabled OL, the CEO acting as the integrating factor. VF presented a contrasting case where distinct boundaries of the departments existed with no integration mechanisms. Without overlapping boundaries and lack of integration mechanisms, silos of knowledge came into being, which also had a risk of high loss of knowledge in the event of an expert employee such as the helpdesk head leaving the SE. Correspondingly, few instances of OL were found in VF.
The social boundary

Data revealed that implicit social boundaries between the SEs studied and the target community were very significant for learning. They demarcated the social-cultural-economic-political context of the target community and the SE members. Contextual knowledge of the target community emerged as a vital contributor to OL and impacted programme effectiveness in SEs.

Different, equally effective social boundary configurations were observed in the different SEs (Figure 3). In EDN, target community members were employed as executives. They lived among the target community, undertook field roles and reported regularly to the middle managers. Same was true for SSA, where, in addition to the executives, a few middle managers also belonged to the target community. SSA also had voluntary committees of target community members at different levels (e.g. community, village, district, etc), which supported SE’s activities, and were in regular contact with the executives and middle managers. In EF, a different boundary configuration was identified - instead of employing target community members, the SE temporarily extended its boundaries to them - executives (who did not belong to the target community) were required to live in the community for a month, after which they returned to the SE and undertook predominantly field based activities while being in regular contact with the middle managers. All these configurations were found to be conducive to OL. In contrast, despite employing target community members at the executive, middle management and top management levels (CEO) in VF, the configuration did not seem to add to learning with respect to the target community. These differences are explained in the following paragraphs and summarised in Table 5.

Data analysis showed two facets of contextual knowledge across the social boundary. First, SEs learnt about target community requirements so as to develop new programmes or
customise existing ones. Second, they learnt about the unique contexts of their target communities - social, economic, political, cultural. Such learning was found to impact the success of the programmes. SEs which incorporated contextual knowledge in their programmes were able to enhance their programme effectiveness. For example:

CEO, SSA, on developing progressive schools for the target community: If at all the child has learnt something, we should not undo that, but build on that. Suppose the child is 12 years old and does not know anything, so you start from scratch. But then you don’t delay in up-scaling the child, because age-wise the child is much ahead and class-wise if you put the child in lower class, there will be frustration building in the child. Like a girl of 10 years, who has never gone to school, but has the talent of 4th [standard 8]. You can’t keep her in 1st standard for the whole year... And at the end your educational level and age should tally, then the person can do something in life. So we built in that package, that shortcut way of uplifting. We have the case of a girl who entered at the age of 10 in 1st standard and at the age of 14 she appeared for 10th. So on a spell of 5 years, she appeared in 10th standard and passed with 60% and now... she will pass 12th [standard] at the age of 17. So this we had to create. If you don’t create this, we will not reach out to the children. Pashan shala’s [progressive school] innovation is in this. We adjust the timetable according to their needs, working hours according to their needs, teaching methodology as per the children’s age and capacities... (social boundary, contextual knowledge).

On the other hand, non-incorporation of contextual knowledge led to failure of products/services. Failure of a smoke-less stove, which the middle management in EDN considered as a revolutionary product for their target community indicate this (family size and product ergonomics were cited as reasons for failure):

Middle manager [SHG manager], EDN on the failure of smokeless stove: [The RO head] went to Sri Lanka from where he brought a smokeless stove for demonstration. We demonstrated it in the villages... once it is heated, then it does not give smoke and can be taken inside the house. The demonstrations went well but it was not successful. The problems were that... the villages have a tradition of joint families, [and it can make food for only few people at one time] so the villagers said that they will have to cook 4-5 times. And it was also

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*In the Indian education system, grades 1 through 12 are referred to as ‘classes’ or ‘standards.’*
a little high... one cannot cook without sitting on a chair, the ladies in the village are used to sitting on the floor and cooking, so it was not suitable for them... (OL through product failure, social boundary, contextual knowledge).

This inference got support from VF. At their HO located in a metropolitan city in India, VF had five visually disabled employees (their target community) including the CEO. While the programme was useful for the target community at a generic level, the need to incorporate contextual knowledge became apparent when they visited a remote village with the purpose of expanding their programme and found that their current offering did not seem to fit the needs of the people. It turned out to be an assumption breaking experience for them – realising that educational and social differences necessitated modification of the programme to suit community specific needs. As the advocacy team member stated:

To give an example of last week, we very recently started actually working in the field in Odisha [a State in India]... it has been a huge learning curve for us in terms of understanding within Odisha what the issues are but also on a rural level... which are completely different from the kind of issues you might encounter in Delhi, in some levels, sometimes they are not, sometimes they are very similar, [for example] in terms of resources. So in some cases we have spoken to people where they might have heard of Braille, but they have never actually come across a Braille book or any other form of accessible and resource like that. So like particularly in Odisha when we have been talking to groups when there is more children of school age they are beyond class 7th or 8th, it’s pretty common they will have dropped out of school... [due to issues of attitude and motivation]. So that is one of the major differences in working in Delhi to working in these rural areas... We started with those attitudinal changes before you can do anything else and then you look at resources and then... whereas here those attitudinal barriers are definitely still there but maybe less so, people are little more aware than they are in rural areas at least. (Social boundary, differences in social context).

Above analysis suggest that learning across social boundaries was achieved through two mechanisms: immersion in the social context of operations, and field based interactions with the target community. Immersion was of two kinds: employing the target community in the SE (community membership), and immersing SE employees in the target community (lived experience). Significantly, mere employment of target community did not lead to OL experiences (apart from providing a generic understanding of community needs) if the
employee was distanced from the community context and consequently had poor understanding of it. This was evident in the case of VF described earlier; instead, lived experience in the community was required, including the mode of immersion identified in EF, where, after joining the SE, executives were required to live in the target community as its members for a month. This initial lived experience - experiencing the socio-economic-political-cultural aspects of the community as a member - enabled executives to understand the context of operations and later translate that into services in the field:

Middle manager, EF, on immersion process: ...we have a process called slum immersion. This is a time where the fellows [executives] go and live in slums... during that month they get very acquainted with the teachers, with the children they teach. They go with these children to their home spaces and they try to get to know the community. ...there are lot of bias[es], that parents are drunk..., they are not interested in getting their children educated, they are interested in getting their children to work somewhere. So are they [executives] able to get into the slum and understand what is it that motivates the parents to behave the way they are? Is it cultural? Is it sociological? What is their need? ... ... All of them [fellows] come from urban areas, upper middle class families.... At this time, they have no ...mobile phones, they have to manage for their food and stay in the community for free of cost. So they have to build that kind of relationship... (non-member immersion, lived experience in target community).

In addition to community membership and lived experience, SEs maintained constant immersion through regular field based activities and interactions. In three SEs (EDN, EF, SSA), the major part of executives’ jobs was in the field, engaging with the target community, interacting with them and delivering the programme. In VF, where field interactions were almost absent, OL instances were fewer and occurred when employees went to the field and experienced the contrast between their assumptions and the actual field social context.

In summary, social boundaries were found to be critical for learning in SEs. Unlike commercial enterprises where generic product/service could be provided to satisfy consumer needs, social problems required community specific solutions. Even where generic services and models were available such as primary education in SSA, higher levels of customization
or innovations were required based on the socio-economic-cultural context of the target community. Learning across social boundaries occurred through the mechanisms of immersion, constant field interactions and field based activities.

**Organizational learning as a process of interaction across multiple boundaries**

Looking at each boundary separately for tracing OL is like viewing several pieces of a jigsaw puzzle that provide hints of the actual picture but not revealing it completely until put together. At the same time, it is also true that trying to assemble the picture without knowing where individual parts fit can be overwhelming. Each learning interaction coded from data revealed multiple boundaries, discussed separately in previous sections. Now we bring these separate boundaries together, examining their interaction and combined impact on OL. We found OL in SEs to be a process in which expert knowledge within them was combined with contextual knowledge leading to effective solution development. While internal expert knowledge developed from interactions across external competence boundaries, contextual knowledge was developed through interactions across the social boundary (Figure 4).

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Learning in EDN was a process of constant interweaving of expert and contextual knowledge. Daily field interactions with target community members (including executives from the community) made the SE intensely aware of their social norms, community structure, ways of behaviour and cultural idiosyncrasies. This knowledge was utilized in innovations and customization in product, services and programme processes to enable effectiveness. For instance, while professional knowledge about microfinance was brought into the SE through formal trainings, its implementation for effective service development and delivery required the employees to understand the local context, behaviours and socio-cultural patterns and to incorporate them into the service. Thus, understanding the family
dynamics, in order to ensure loan recovery and proper loan utilisation for social development,

EDN started giving loans in the name of the woman of the family:

Unit manager, Microfinance, EDN: We made mistakes initially that we gave loans to the men but would get signatures or thumb impressions of the wives. If the wife was not there, then we would get the mother’s signature. In these cases loan recovery was difficult [since the wife would not know about the loans and the men would use the money for some other purposes]...

When we used to give loans to men, it was a little dangerous, man would want that he takes the loan and the wife does not get to know about it, that loan is dangerous. When we give loans to women, the husband will know about it, and this way 2 people in the house know about the loan... Suppose we give loan to the husband and the wife does not know about it, when we go for recovery, she will say I don’t know, did you ask me before giving the loan? But when we give loan to the wife, the husband is also attached. If the man is not there, at least she will talk properly. Women are better than men [for giving loans and loan recovery] (incorporation of contextual knowledge in expert knowledge to develop customized solutions).

Similarly, contextual knowledge was utilized to customise products to the community requirements thus indicating the amalgamation of expert knowledge from outside with contextual knowledge for effective service development:

RO Manager: We realized that clean water was a problem in the village. People were getting ill. So we thought what we can do about it. We called lot of people, talked to them… The idea came that we can fit a filter in the hand-pump (using expert knowledge for solution development). We went to villages to test it, then people said that we do a lot of work from the hand pump, we even bathe our cattle under it, if you fit a filter in the hand-pump, it will have to be changed very frequently (local contextual knowledge). Then we thought that we could make people store water in water filters at home (incorporation of contextual knowledge into expert knowledge). [Note: Even the type of container for water filter went through multiple changes before one was accepted by the target community].

In instances where such incorporation was not achieved led to unsuccessful or ineffective products/services. This was clearly brought out in the case of introduction of the smokeless stove (described earlier), where, despite its advantages, it failed as its capacity could not cater to joint families in the community, and the design did not suit the traditional way of cooking by sitting on the floor.
In SSA, interaction between social and expert boundaries was found to be essential for development of the innovative education programme. The CEOs combined their expert knowledge of social work and non-formal education, with the context of the community to develop a progressive education model for stone quarry workers’ children. Similarly, executives belonging to the target community trained in non-formal education described instances where they developed field based innovative teaching aides through a process of resource bricolage where they combined knowledge gained in training to their understanding of the social context. These instances were converted to OL through sharing in meetings.

In EF, expert knowledge within the SE formed the core of the programme with learning from the context resulting in field based innovations, customizations, programme delivery and implementation. Knowledge of field context formed the backdrop in which operational activities were developed through a process of mutual engagement and co-creation between middle managers, executives and the target community. This resulted in a regular process of learning in EF and was reflected in individualised programmes for the target community.

Similarly, at VF, while instances of learning across competence boundaries were not identified, learning occurred through social boundary interactions. However, even here, expert knowledge was utilized to interpret the social context and suitable changes were made in the programme. Critical learning events occurred only where the two boundaries were found to interact during the process of field based interactions with the target community.

In three SEs (EDN, VF, EF), amalgamation of expert and contextual knowledge was brought about by the middle management. In the fourth (SSA), the CEO(s) were located at the interface chiefly because the middle management lacked required strategic knowledge. These individuals were central to the combination of expert and contextual knowledge by virtue of their embeddedness into the SE and strategic level understanding of it, at the same
time being connected with the field through the executives. This pointed towards the specific significance of middle managers for OL in SEs.

In short, interaction between social and competence boundaries was found to be important for facilitating OL in SEs and impacted their programme effectiveness. The different mechanisms of interaction identified were: mutual engagement and co-creation, sharing of learning from field-level bricolage, and interpretation and incorporation of contextual knowledge into the programmes. The middle managers, and in their absence, the CEO were identified as critical agents enabling this process.

**Power boundaries**

Power exists and is exercised within an organization and with external stakeholders. In the SEs, power differentials impacted interactions and resulted in implicit power boundaries with external stakeholders. Within SEs, boundaries of potential power were inferred.

*Power boundaries with external stakeholders*

Power boundaries between SEs and external stakeholders (funders, partners, government) emerged as the latter held greater power over critical resources including knowledge. Power differentials due to expert knowledge resulted in partial overlaps between power and competence boundaries. SE learning processes reduced these knowledge differences; revealing that SEs used learning mechanisms as influence mechanisms thus reducing power differentials to the benefit of the organization.

*Potential power boundaries within the SE and with the target community*

Unlike with external stakeholders, power boundaries couldn't be directly identified inside the SEs. The researcher used constant comparison and questioning methods, and identified the possible emergence of power boundaries (due to hierarchy and knowledge differences) in the absence of certain intra-organizational interactions. This resulted in intense discussion and debate with the independent coders, their contention being that a power boundary
(especially due to knowledge differences) as identified by the researcher was not visible in
the data. This led to a discussion on the implicit nature of power boundaries and a what-if
analysis with the coders (and with the second author) following which it was agreed that the
interactions revealed a potential for a power dimension, and could impact learning. Therefore,
we coded this category as potential power boundary; and of two kinds existing within the
SEs: due to different knowledge bases, and due to legitimate power.

Potential power boundaries were found to be top-down for expert knowledge held by
experts and middle managers (CEO, helpdesk manager and department heads in VF; CEO
and middle managers in EDN; CEOs in SSA; middle managers and subject matter experts in
EF). These boundaries were identical to the internal competence boundaries and moved in a
similar fashion. Potential power boundaries were bottom-up for contextual knowledge,
developed due to ability of the executives and target community to withhold field based
knowledge, and they coincided and changed with social boundaries. Both these boundaries
were not explicitly identifiable as learning interactions acted as influence mechanisms to
mitigate their impact. Potential power boundaries due to hierarchy were also inferred.
However, it was found that contrary to the notion of negative impact of power on learning
(e.g. Bunderson & Reagans, 2011), legitimate power was used to support learning by creating
a learning environment in the SEs with autonomy to middle managers, constant consultation
across hierarchy, mutual engagement, co-creation, and knowledge sharing.

**DISCUSSION AND CONCLUSION**

Extant literature focuses on the static aspects of boundaries and discusses learning
processes across them (e.g.: Wenger, 2000), chiefly studying single boundaries across single
stakeholder interface (Mork, Hoholm, Maaninen-Olsson & Aanestad, 2012). In reality,
organizational boundaries are complex, multiple and interactive (Hernes, 2004). Management
literature has given scarce attention to the dynamic nature of boundaries and their ability to
impact organizational processes (Heracleous, 2004). This study brings out intertwined aspects of this dynamism: the emergence and reconfiguration of, and interactions between multiple boundaries during learning interactions; and their implications for learning.

Supporting Santos and Eisenhardt (2005), we identify that competence boundaries of the organization may not coincide with its structural boundaries. To utilise critical expert knowledge located outside their boundaries, SEs develop internal learning mechanisms and adopt hiring. However, mere internalization of expertise does not enable OL. Extant research indicates that interdepartmental boundaries result in differences in mental models which can inhibit innovation (Dougherty, 1992) and learning, and create structural holes (Burt, 1992) resulting in need for brokerage (Burt, 2004) generally undertaken by individuals. We identify that creation of a common expert knowledge base between departments blurs boundaries and enables learning. Organizations can benefit from developing overlapping boundaries of competence at the middle management level by employing integration mechanisms of task design and role design (in addition to individual agent led brokering).

Our findings strongly support the importance of the contextual nature of learning (e.g. Brown & Duguid, 1991; Lave, 1991) in extant literature, indicating that expert knowledge alone cannot lead to development of effective programmes. SEs need to gain access to contextual knowledge by developing an understanding of target community's socio-psychological fabric. This type of knowledge is tacit, embedded and located in the target community, and therefore is likely to be undetected by ‘non-natives’ (Sole & Edmondson, 2002: S30). We identify implicit boundaries emerging due to absence of this knowledge in the SE vis-a-vis the target community. Successful SEs ensure overlaps between their social and structural boundaries which enable them to access and utilize contextual knowledge for effective programme development. We extend this understanding by identifying the processes through which SEs gain access to this knowledge: by immersion in the social context by
either employing the target community or by ensuring a lived experience followed by close and regular field-based interactions and mutual engagement with the target community.

Extant boundary literature gives sparse attention to learning interactions among multiple boundaries (Hernes, 2004). In a real organizational context, multiple boundaries appear, interact with each other and impact organizational activities. We show that these interactions are crucial for programme effectiveness. Interactions between social and competence knowledge enable integration of contextual knowledge with expert knowledge thus enabling development of community-specific programmes. We identify middle managers as the critical integrators of these knowledge bases. They possess strategic knowledge that enables them to utilize the two knowledge bases for benefit of the organization. This finding corroborates acknowledgment of the strategic importance of middle managers (Floyd & Wooldridge, 1994; Huy, 2001) as innovators (Kanter, 1982), sense makers (Sharma & Good, 2013), organizational interpreters and enablers of OL (Beck & Plowman, 2009).

Recognising that power dynamics impact organizational functioning and interactions, we explored the impact of different power bases on learning; identifying a potential power component to competence and social boundaries due to knowledge differences. In contrast to the conventional negative notion of power boundaries as hindering learning or efficient organizational functioning, this study suggests that organizations can use learning mechanisms as influence mechanisms to mitigate power differentials, given that legitimate power is utilized for driving a collective objective, thus supporting the recent recognition of the use of socio-political processes (Lawrence, Mauws, Dyck & Kleysen, 2005) and socialised use of power (Bunderson & Reagans, 2011) to drive learning.

We contribute to OL literature by examining learning across multiple implicit boundaries from a process perspective; locating in the SE context where boundary configurations seem more fluid and dynamic than commercial enterprises; identifying middle managers as critical
knowledge brokers; and highlighting conditions in which power bases can be utilized for organizational effectiveness. We contribute to the developing SE literature by examining a hitherto less explored area in SE research, and extending learning theory to the SE domain. Our findings contribute to sensitizing managers in the social sector towards the presence of implicit boundaries in organizations. We indicate critical knowledge resources (individuals or groups) and boundary configurations which enable organizational learning, and describe mechanisms for managing implicit boundaries, thus providing ways to develop processes through which learning can be promoted and captured.

REFERENCES


Table 1: Demographic profile of the sample and data sources

<table>
<thead>
<tr>
<th>Social enterprises: Demographic information</th>
<th>Entrepreneurship Development Network (EDN)</th>
<th>Society for Social Action (SSA)</th>
<th>Vision Foundation (VF)</th>
<th>Education Foundation (EF)</th>
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<tbody>
<tr>
<td>Sector</td>
<td>Economic Development</td>
<td>Education</td>
<td>Health</td>
<td>Education</td>
</tr>
<tr>
<td>Domain of activity studied</td>
<td>Support for economic development (and better health) of underdeveloped areas</td>
<td>Regularization of education for children of migrant workers working in stone quarries (among other objectives)</td>
<td>Social inclusion and support for visually impaired by providing relevant information</td>
<td>Capability building of head masters of municipal schools for improving the education system</td>
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<td>Organization size</td>
<td>280 employees + 28 part-time employees</td>
<td>22 employees + 52 part-time employees</td>
<td>12 employees + 2 volunteers</td>
<td>101 employees (long term interns included)</td>
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<td>Office under study</td>
<td>Regional Office (1 district)</td>
<td>Head Office (also the Regional Office for the city)</td>
<td>Head Office (the only full fledged functioning office)</td>
<td>Regional Office (1 city)</td>
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<td>Multiple Indian and Foreign funders (30-70 funding)</td>
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<td>Group discussions (GD)/ interviews</td>
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<td>1 (8 executives)</td>
<td>-</td>
<td>2 (2 long term interns in 1 GD; 4 long term interns in other)</td>
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<td>Regional Office Middle managers</td>
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<td>Head office support staff</td>
<td>Executives – long term interns</td>
<td>Middle managers</td>
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<td>Regional Office – Head and middle managers Executives</td>
<td>Long term intern</td>
<td>(department heads)</td>
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<td>Target community</td>
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<td>Target community</td>
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Data collection: Sources of data
Table 2: Inter-rater agreement statistics (kappa values)

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<th>Independent coder 2 + Researcher</th>
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<td>SE 2 (SSA)</td>
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<td>2</td>
<td>B1 (Boundary type)</td>
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<td>0.956**</td>
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<td>B2 &amp; B3 (Learning mechanisms &amp; managing power boundaries)</td>
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<td>0.937**</td>
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<td>4</td>
<td>B4 (Stakeholders involved)</td>
<td>0.962**</td>
<td>1.000**</td>
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** p<0.001

Table 3: External competence boundary configurations and organizational learning mechanisms

<table>
<thead>
<tr>
<th>Social enterprise</th>
<th>Competence boundary configurations</th>
<th>Organizational learning mechanisms</th>
<th>Bridge with experts</th>
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<tr>
<td></td>
<td>Competence Boundaries at Time T₀</td>
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<td></td>
<td>Competence Boundaries at Time T₁</td>
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<td>Initial training</td>
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<td>Regular training</td>
<td>Personal relationship based training</td>
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<td>Need based training</td>
<td>Active participation and mutual engagement</td>
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<td>Middle management “+” experts</td>
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<td>Experts</td>
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<tr>
<td>Vf</td>
<td>Organization “+” experts</td>
<td>Experts</td>
<td>Experts</td>
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“+”: inclusion of the stakeholders in the competence boundary
T₀: Initial stage of programme development
T₁: Time of data collection
Table 4: Configurations of internal boundaries of competence and organizational learning mechanisms

<table>
<thead>
<tr>
<th>Social enterprise</th>
<th>Nature of internal competence boundaries between different groups of employees</th>
<th>Integration mechanisms for organizational learning</th>
<th>Organizational learning mechanisms</th>
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<tr>
<td>CEO and middle management</td>
<td>CEO and executives</td>
<td>Within Middle management</td>
<td>Middle management and executives</td>
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<td>EDN</td>
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<td>SSA</td>
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<td>VF</td>
<td>CEO + Helpdesk head together, distinct with other middle managers</td>
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T₀: Initial stage of programme development; T₁: Time of data collection

Table 5: Social boundary configurations and organizational learning mechanisms

<table>
<thead>
<tr>
<th>Social enterprise</th>
<th>Structural and social boundary</th>
<th>Social boundary configuration</th>
<th>Critical learning mechanisms</th>
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<tr>
<td>EDN</td>
<td>Overlapping</td>
<td>Community members as employees (executives) in SE</td>
<td>Immersion in social context (community membership) Field based interactions – high</td>
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<td>SSA</td>
<td>Overlapping</td>
<td>Community members as employees (middle management, executives) in SE</td>
<td>Immersion in social context (community membership) Field based interactions – high</td>
</tr>
<tr>
<td>EF</td>
<td>Distinct</td>
<td>Executives (SE employees) undergo initial lived experience of the target community</td>
<td>Immersion in social context (short term lived experience) Field based interactions – high</td>
</tr>
<tr>
<td>VF</td>
<td>Overlapping</td>
<td>Community members as employees (executive, middle management, CEO) in SE</td>
<td>Contrast between different social contexts Field based interactions – low</td>
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</table>
### Figure 1: External competence boundary configurations

<table>
<thead>
<tr>
<th>Social Enterprise</th>
<th>Time T&lt;sub&gt;0&lt;/sub&gt;</th>
<th>Time T&lt;sub&gt;1&lt;/sub&gt;</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDN</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td>Internalization of external expert knowledge over time by middle management</td>
</tr>
<tr>
<td>SSA</td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td>Internalization of external expert knowledge over time by top management</td>
</tr>
<tr>
<td>EF</td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
<td>Internalization of external expert knowledge over time by middle management and subject matter experts</td>
</tr>
<tr>
<td>VF</td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
<td>No internalization of external expert knowledge. Transactional interactions with external experts for programme delivery</td>
</tr>
</tbody>
</table>

**Key:**
- **TMT:** Top management team
- **MM:** Middle management
- **Ex:** Executives
- **X:** Expert knowledge
- •: Internal stock of knowledge
- - : Interaction
- **T**<sub>0</sub>: Initial stage of programme development
- **T**<sub>1</sub>: Time of data collection

### Figure 2: Internal competence boundary configurations

<table>
<thead>
<tr>
<th>Social Enterprise</th>
<th>Time T&lt;sub&gt;0&lt;/sub&gt;</th>
<th>Time T&lt;sub&gt;1&lt;/sub&gt;</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDN</td>
<td><img src="image9" alt="Diagram" /></td>
<td><img src="image10" alt="Diagram" /></td>
<td>Vertical overlap between boundaries of competence over time between middle management and executives</td>
</tr>
<tr>
<td>SSA</td>
<td><img src="image11" alt="Diagram" /></td>
<td><img src="image12" alt="Diagram" /></td>
<td>Vertical overlap between boundaries of competence over time between (a) middle management and executives; (b) middle management and subject matter experts</td>
</tr>
<tr>
<td>EF</td>
<td><img src="image13" alt="Diagram" /></td>
<td><img src="image14" alt="Diagram" /></td>
<td>Vertical overlap between boundaries of competence over time</td>
</tr>
<tr>
<td>VF</td>
<td><img src="image15" alt="Diagram" /></td>
<td><img src="image16" alt="Diagram" /></td>
<td>No overlaps in expert boundaries. Individuals/groups with exclusive knowledge bases</td>
</tr>
</tbody>
</table>

**Key:**
- **TMT:** Top management team
- **MM:** Middle management
- **Ex:** Executives
- **SME:** Subject matter experts
- **X:** Expert knowledge base of SMEs
- •: Knowledge with TMT
- *: Knowledge with MM
- **z:** Knowledge base of executives
- **T**<sub>0</sub>: Initial stage of programme development
- **T**<sub>1</sub>: Time of data collection
**Figure 3: Social boundary configurations**

<table>
<thead>
<tr>
<th>Social Enterprise</th>
<th>Time $T_0$</th>
<th>Time $T_1$</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDN</td>
<td></td>
<td></td>
<td>Overlapping organizational and social boundary. Employment of target community as executives in the SE.</td>
</tr>
<tr>
<td>SSA</td>
<td></td>
<td></td>
<td>Overlapping organizational and social boundary. Employment of target community as executives and middle managers in the SE.</td>
</tr>
<tr>
<td>EF</td>
<td></td>
<td></td>
<td>Temporary overlap between organizational and social boundary through lived experience of executives into target community.</td>
</tr>
<tr>
<td>VF</td>
<td></td>
<td></td>
<td>Partial overlap between organizational and social boundary through employment of target community members distanced from the context of operations at top management and middle management, and executive levels.</td>
</tr>
</tbody>
</table>

**Key:**
- TMT: Top management team
- MM: Middle management
- Ex: Executives
- TC: Target community
- \(+:\) Internal knowledge of the SE
- \(-:\) Local contextual knowledge
- \(\blacksquare:\) Community employees distanced from the local context

- \(T_0: \) Initial stage of programme development
- \(T_1: \) Time of data collection
Figure 4: Interaction between social and competence boundaries

<table>
<thead>
<tr>
<th>Social Enterprise</th>
<th>Social and competence boundaries</th>
<th>Description</th>
</tr>
</thead>
</table>
| EDN              | ![Diagram](image1)              | Middle managers have expert knowledge
|                  |                                 | Executives have contextual knowledge
|                  |                                 | Middle managers interact with executives for programme development with some interactions with the TMT (CEO) – expert and contextual knowledge combined |
| SSA              | ![Diagram](image2)              | TMT (CEOs) have expert knowledge
|                  |                                 | Executives and middle management have contextual knowledge
|                  |                                 | CEOs interact with middle managers and executives for programme development – expert and contextual knowledge combined |
| EF               | ![Diagram](image3)              | Middle managers have expert knowledge
|                  |                                 | Executives have contextual knowledge
|                  |                                 | Middle managers interact with executives for programme development with some interactions with the TMT (CEO) – expert and contextual knowledge combined |
| VF               | ![Diagram](image4)              | TMT and middle managers have expert knowledge
|                  |                                 | TMT, middle managers and executives from the target community are located away from the target community context
|                  |                                 | Few instances of combination of expert and contextual knowledge identified |

Key:
- TMT: Top management team
- MM: Middle management
- Ex: Executives
- TC: Target community
- ⪪: Community employees distanced from the local context
- - - - : Competence boundaries
- - - - - : Social boundaries
- T₀: Initial stage of programme development
- T₁: Time of data collection